Listing of Claims:

1. (Previously presented) A laminate flooring sub-layer material comprising:
scrap inorganic fibers; and
plastic-containing bonding fibers;
said scrap inorganic fibers containing formaldehyde-containing binder thereon and the scrap inorganic fibers and the plastic-containing bonding fibers being uniformly blended and bonded together by a portion of the plastic of said plastic-containing bonding fibers, wherein the plastic-containing bonding fibers are between about 10 to 50 wt. % of the laminate flooring sub-layer material and the laminate flooring sub-layer material having a density of about 80-112 kg/m^3.

2. (Original) The laminate flooring sub-layer material of claim 1, wherein the laminate flooring sub-layer material has a substantially uniform density throughout its volume.

3. (Canceled)

4. (Original) The laminate flooring sub-layer material of claim 3, wherein the rotary fibers have an average diameter not greater than about 6 micrometers.

5. (Original) The laminate flooring sub-layer material of claim 3, wherein the rotary fibers have an average diameter of about 2 to 5 micrometers.

6. (Original) The laminate flooring sub-layer material of claim 3, wherein the rotary fibers have an average fiber length not greater than about 3 cm.

7. (Original) The laminate flooring sub-layer material of claim 3, wherein the rotary fibers have an average fiber length between about 0.2 to 1 cm.

8.-11. (Canceled)

12. (Original) The laminate flooring sub-layer material of claim 1, wherein the plastic-containing bonding fibers comprise bi-component fibers.

13. (Original) The laminate flooring sub-layer material of claim 12, wherein the bi-component fibers are sheath-core, side-by-side, island-in-the-sea, or segmented-pie cross-section type.

14. (Original) The laminate flooring sub-layer material of claim 12, wherein the bi-component fibers comprise:

a core material; and

a sheath material, wherein the sheath material has a melting point temperature lower than the melting point temperature of the core material.

15. (Original) The laminate flooring sub-layer material of claim 14, wherein the core material and the sheath material are both thermoplastic polymers.

16. (Original) The laminate flooring sub-layer material of claim 14, wherein the core material is a mineral and the sheath material is a thermoplastic polymer.

17. (Original) The laminate flooring sub-layer material of claim 14, wherein the core material and the sheath material are same thermoplastic polymer but of different formulations.

18. (Original) The laminate flooring sub-layer material of claim 1, wherein the plastic-containing bonding fibers comprise mono-component thermoplastic polymer fibers.

19. (Canceled)

20. (Original) The laminate flooring sub-layer material of claim 1, wherein said plastic-containing bonding fibers are between about 10 to 25 wt. % of the laminate flooring sub-layer material.

21. (Original) The laminate flooring sub-layer material of claim 1, wherein said laminate flooring sub-layer material has a gram weight of about 150 to 600 gm/m^2.

22.-23. (Canceled)

24. (Original) The laminate flooring sub-layer material of claim 1, wherein said laminate flooring sub-layer material after curing or heating has a thickness of about 2 to 8 mm.

25. (Previously presented) A laminated sub-layer mat comprising:

a fiber composite mat having a first side and a second side, the fiber composite mat comprising:

scrap inorganic fibers;

plastic-containing bonding fibers, said scrap inorganic fibers containing formaldehyde-containing binder thereon and the scrap inorganic fibers and said plastic-containing bonding fibers being uniformly blended and bonded together by a portion of the plastic of said plastic-containing bonding fibers; and

a vapor barrier layer bonded to at least one of the two sides of the fiber composite mat, wherein the plastic-containing bonding fibers are between about 10 to 50 wt. % of the fiber composite mat and the fiber composite mat having a density of about 80-112 kg/m^3.

26. (Original) The laminated sub-layer mat of claim 25, wherein the vapor barrier layer is polyethylene film, kraft paper, kraft paper coated with asphalt, foil, foil-backed paper, foil-backed paper coated with asphalt, or flame-resistant foil-scrim-kraft paper.

27. (Original) The laminated sub-layer mat of claim 25, wherein at least one edge of the vapor barrier layer extends beyond the corresponding edge of the fiber composite mat.

28. (Canceled)

29. (Original) The laminated sub-layer mat of claim 28, wherein the rotary fibers have average diameter not greater than about 6 micrometers.

30. (Original) The laminated sub-layer mat of claim 28, wherein the rotary fibers have average diameter of about 2 to 5 micrometers.

31. (Original) The laminated sub-layer mat of claim 28, wherein the rotary fibers have average fiber length not greater than about 3 cm.

32. (Original) The laminated sub-layer mat of claim 28, wherein the rotary fibers have average fiber length between about 0.2 to 1 cm.

33.-36. (Canceled)

37. (Original) The laminated sub-layer mat of claim 25, wherein said plastic-containing bonding fibers comprise bi-component fibers.

38. (Original) The laminated sub-layer mat of claim 37, wherein said bi-component fibers are sheath-core, side-by-side, island-in-the-sea, or segmented-pie cross-section type.

39. (Original) The laminated sub-layer mat of claim 37, wherein said bi-component fibers comprise:

a core material; and

a sheath material, wherein said sheath material has a melting point temperature lower than the melting point temperature of the core material.

40. (Original) The laminated sub-layer mat of claim 39, wherein said core material and said sheath material are both thermoplastic polymers.

41. (Original) The laminated sub-layer mat of claim 39, wherein said core material is a mineral and said sheath material is a thermoplastic polymer.

42. (Original) The laminated sub-layer mat of claim 39, wherein said core material and said sheath material are same thermoplastic polymer but of different formulations.

43. (Original) The laminated sub-layer mat of claim 25, wherein said plastic-containing bonding fibers comprise mono-component thermoplastic polymer fibers.

44. (Canceled)

45. (Original) The laminated sub-layer mat of claim 25, wherein said plastic-containing bonding fibers are between about 10 to 25 wt. % of the fiber composite mat.

46. (Original) The laminate sub-layer mat of claim 25, wherein said laminate sub-layer mat has a gram weight of about 150 to 600 gm/m^2.

47.-48. (Canceled)

49. (Original) The laminate sub-layer mat of claim 25, wherein said laminate sub-layer mat after curing or heating has a thickness of about 2 to 8 mm.

50. (Previously presented) A floor structure comprising:

a supporting structural substrate;

a laminated sub-layer mat, wherein said laminated sub-layer mat comprises a fiber composite mat having a first side and a second side, the fiber composite mat comprising:

scrap inorganic fibers containing formaldehyde-containing binder thereon;

plastic-containing bonding fibers, said scrap inorganic fibers and said plastic-containing bonding fibers being uniformly blended and bonded together by a portion of the plastic of said plastic-containing bonding fibers;

a vapor barrier layer bonded to at least one of the two sides of the fiber composite mat, wherein the plastic-containing bonding fibers are between about 10 to 50 wt. % of the fiber composite mat and the fiber composite mat having a density of about 80-112 kg/m^3; and

a finished floor layer in contact with the laminated sub-layer mat.

51.-58. (Canceled)